5

10

15

30

 A web server for facilitating communications with an embedded device through a gateway, the web server comprising:

web pages, the web pages being downloadable by web clients and being usable by the web clients:

an HTTP server for serving the web pages to the web clients;

- a user interface component, the user interface component being downloadable by a web client and being usable by the web client to present a user interface element that relates to an embedded device, the user interface element being capable of causing communication with the embedded device;
- a gateway communications module for communicating with the gateway, wherein the gateway is in electronic communication with the embedded device, and wherein the gateway is programmed to communicate with the embedded device, wherein the user interface element initiates instructions included in the gateway communications module to communicate with the embedded device; and
- the HTTP server operating to send the user interface component to the web client, the web client receiving and processing the user interface component to present the user interface element, wherein communication with the embedded device may be initiated through use of the user interface element by the user interface element sending data to the HTTP server, the HTTP server sending the data to the gateway communications module, and the gateway communications module communicating with the gateway that communicates with the embedded device.
- 25 2. The web server as defined in claim 1 wherein the user interface component comprises instructions written in HTML.
  - The web server as defined in claim 1 wherein the user interface component comprises instructions written in HDML.
  - The web server as defined in claim 1 wherein the user interface component comprises instructions written in WML.

10

- The web server as defined in claim 1 wherein the user interface component comprises an applet.
- 5 6. The web server as defined in claim 1 wherein the user interface component comprises web-based multimedia.
  - The web server as defined in claim 1 further comprising a plurality of user interface components.
  - 8. The web server as defined in claim 1 wherein the gateway communications module comprises a servlet.
- The web server as defined in claim 1 wherein the gateway communications module
   comprises a script.

25

20

30

5

10

15

20

10. A web server for facilitating communications with a plurality of embedded devices through a gateway, the web server comprising:

web pages, the web pages being downloadable by web clients and being usable by the web clients:

an HTTP server for serving the web pages to the web clients;

- a plurality of user interface components, the user interface components being downloadable by the web clients and being usable by the web clients to present user interface elements that relate to the embedded devices, the user interface elements being capable of causing communication with the embedded devices:
- a gateway communications module for communicating with the gateway, wherein the gateway is in electronic communication with the embedded devices, and wherein the gateway is programmed to communicate with the embedded devices, wherein the user interface elements initiate instructions included in the gateway communications module to communicate with the embedded devices; and
- the HTTP server operating to send the user interface components to the web clients,
  the web clients receiving and processing the user interface components to
  present the user interface elements, wherein communication with the
  embedded devices is initiated through use of the user interface elements by the
  user interface elements sending data to the HTTP server, the HTTP server
  sending the data to the gateway communications module, and the gateway
  communications module communicating with the gateway that communicates
  with the embedded devices.

25

30

- 11. The web server as defined in claim 10 wherein the user interface components comprise instructions written in a markup language.
- 12. The web server as defined in claim 11 wherein the markup language is HTML.
- 13. The web server as defined in claim 11 wherein the markup language is HDML.

in the man fluid the that it is not a second that the fluid that

5

10

15

- 14. The web server as defined in claim 11 wherein the markup language is WML.
- 15. The web server as defined in claim 11 wherein the user interface components further include an applet.
- 16. The web server as defined in claim 15 wherein the user interface components further comprise web-based multimedia.
- The web server as defined in claim 11 wherein the gateway communications module comprises a servlet.
  - 18. The web server as defined in claim 11 wherein the gateway communications module comprises a script.